REMARKS

Reconsideration of the above-identified application in view of the present amendment is respectfully requested.

By the present amendment, new claims 50-53 have been added to the application. New claims 50-53 correspond verbatim to claims 45-48, which were inadvertently cancelled by Applicants' previous response. Applicants, therefore respectfully request that the supplemental amendment be entered as the amendment does not add new matter since the subject matter of claims 50-53 had already been under examination.

Below is a discussion of the rejections of Claim 45-48 as now applied to claims 50-53, which was not addressed in Applicants' previous response.

**Rejections Under 35 USC ¶ 102**

In Section 3 of the Office Action, the Examiner argues that claims 45 to 48 (now 50-53) are anticipated by Rong et al. Please note that one of the authors of Rong et al. is Dr. Manfred Buck, who is also an inventor of the present invention. Therefore, the present inventor is particularly well placed to discuss the relevance or otherwise of the teachings of Rong et al. to the present claims.

Claims 50-53 are not anticipated by Rong et al. because Rong et al. do not teach self-assembled monolayers that include an aryl or rigid alicyclic moiety species in a substantially stable structural form derived, by thermal treatment from less stable structural form.

Rong et al. describe the characterization of self assembled mono layers of a series of ω-(4'-methyl-biphenyl-4-γl)-alkanethiols having the formula $CH_3$-$C_6H_4$-$C_6H_4$-$(CH_2)_m$-SH, where m = 1 to 6 formed on polycrystaline gold and silver surfaces (abstract). The self assembled monolayers taught in Rong et al. are less stable structural forms of self assembled monolayers that are used as a starting point in the preparation of substantially stable self assembled mono layers as recited in the claims. The substantially stable self assembled monolayers as recited in the claims can only be achieved as noted in the specification of the application by thermal treatment from the less stable structural form. Rong et al. does not disclose thermally treating the less stable structural and thus does not disclose the more stable structural form. Therefore, regardless of any product by process restrictions, there is no teaching in Rong of a self assembled monolayer comprised by an aryl or rigid alicyclic

moiety species in a substantially stable structural form, as recited by claims 50-53. Accordingly, claims 50 to 53 are not anticipated Rong et al.

Moreover, there is no teaching or suggestion in Rong et al. of producing a self assembled monolayer comprised by an aryl or rigid alicyclic moiety species in a substantially stable structural form or any teaching that would enable a skilled person to do so, let alone by deriving it, in situ, by thermal treatment from a less stable structural form, as recited by claims 50 to 53.

Therefore, the features of claims 50 to 53 would not be obvious to a skilled person from the teachings of Rong et al.

**Claim Rejections Under 35 USC ¶ 103**

In Section 6 of the Office Action, the Examiner argues that the teachings of claims 45 and 46, and hence new claims 50 and 51, would be obvious to a person skilled in the art from the teachings of Stolowitz (US2002/0192722).

Stolowitz describes a self assembled monolayer comprising an organic compound having a boronic acid complexing moiety (paragraph 25). In one aspect, the organic compound has the formula X-R-Y, where X is an anchor group, R is an optionally substituted alkylene group optionally interrupted by one or more members selected from the group of a hetro atom, an amide atom, and combinations thereof (paragraph 26). The group R is an optionally substituted alkylene group that is interrupted by a hetro-atom, which is about 8 to 40 carbon equivalents in length (paragraph 77).

The Examiner argues that the features of claims 50 and 51 would be obvious to a skilled person from the teachings of Stolowitz. Applicants respectfully disagree.

It should be noted that an important feature of claims 50 and 51 is that the substrate (gold in claim 50 or silver in claim 51) determines the particular choice of the spacer group (an even number of carbon atoms for gold or an odd number of carbon atoms for silver). In other words, the molecular structure should match the substrate in order to produce advantageous bonding geometries (see e.g., page 6, lines 14 to 21 of the present application). There is nothing in the teaching of Stolowitz that would specifically lead a skilled person to these exact combinations of substrates and spacer groups, as defined respectively in claims 50 and 51.

Further, the chain lengths of the aliphatic moieties in Stolowitz are too long. Claims 50 and 51 limit the maximum spacer group lengths to C9/C10, which advantageously facilitates the thermal treatment process (see page 6 lines 21 to 31 of the present application).

Moreover, although example 12 (paragraphs 204 to 207) of Stolowitz discusses relative stability of SAMs, this comparison is between two different systems with one being more stable than the other. There is no teaching in Stolowitz of the transition of the same molecular species from a less stable structure to a more stable structure, as recited in claims 50 and 51.

Therefore, for the reasons outline above, a skilled person would not be led from the teachings of Stolowitz to the features of either claim 50 or claim 51 as presently on file.

In view of the foregoing remarks, Applicants respectfully submit that the present application is in condition for allowance. Applicants respectfully request reconsideration of this application and that the application be passed to issue.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,

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/Richard A. Sutkus/

Richard A. Sutkus
Registration No. 43,941

CUSTOMER NO.: 26,294

TAROLLI, SUNDHEIM, COVELL, & TUMMINO L.L.P.
1300 EAST NINTH STREET, SUITE 1700
CLEVELAND, OHIO 44114
Phone: (216) 621-2234
Fax: (216) 621-4072